

(c) amino acids 2 to 207 of SEQ ID NO:2; and

(d) amino acids 28 to 207 of SEQ ID NO:2.

2 ~~42~~. (New) The isolated protein of claim ~~41~~<sup>1</sup>, wherein said amino acid sequence is (a).

3 ~~43~~. (New) The isolated protein of claim ~~41~~<sup>1</sup>, wherein said amino acid sequence is (b).

4 ~~44~~. (New) The isolated protein of claim ~~41~~<sup>1</sup>, wherein said amino acid sequence is (c).

5 ~~45~~. (New) The isolated protein of claim ~~41~~<sup>1</sup>, wherein said amino acid sequence is (d).

6 ~~46~~. (New) The isolated protein of claim ~~41~~<sup>1</sup>, wherein the polypeptide further comprises a heterologous polypeptide sequence.

7 ~~47~~. (New) The isolated protein of claim ~~46~~<sup>6</sup>, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

8 ~~48~~. (New) The protein of claim ~~41~~<sup>1</sup>, wherein said protein is glycosylated.

9 ~~49~~. (New) The protein of claim ~~41~~<sup>1</sup>, wherein said protein is pegylated.

Sub-C1  
10 ~~50~~. (New) A composition comprising the protein of claim 41 and a pharmaceutically acceptable carrier.

11 ~~51~~. (New) The composition of claim ~~50~~<sup>10</sup>, wherein the composition further comprises a liposome.

12 ~~52~~. (New) A protein produced by a method comprising:  
(a) expressing the protein of claim ~~41~~<sup>1</sup> by a cell; and  
(b) recovering the protein.

*Sub C2* 53. (New) An isolated protein comprising a polypeptide having an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500;

(b) the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500 excluding the N-terminal methionine residue; and

(c) the amino acid sequence of the mature polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500.

*14* 54. (New) The isolated protein of claim <sup>13</sup>53, wherein said amino acid sequence is (a).

*15* 55. (New) The isolated protein of claim <sup>13</sup>53, wherein said amino acid sequence is (b).

*Q1* *56* 56. (New) The isolated ~~protein~~ protein of claim 53, wherein said amino acid sequence is (c).

*16* 57. (New) The isolated protein of claim <sup>15</sup>53, wherein the polypeptide further comprises a heterologous polypeptide sequence.

*17* 58. (New) The isolated protein of claim <sup>16</sup>57, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

*18* 59. (New) The protein of claim <sup>13</sup>53, wherein said protein is glycosylated.

*19* 60. (New) The protein of claim <sup>13</sup>53, wherein said protein is pegylated.

*Sub C3* 61. (New) A composition comprising the protein of claim 53 and a pharmaceutically acceptable carrier.

*20* 62. (New) The composition of claim <sup>20</sup>61, wherein the composition further comprises a liposome.

22 ~~63~~. (New) A protein produced by a method comprising:

- (a) expressing the protein of claim ~~53~~<sup>13</sup> by a cell; and
- (b) recovering the protein.

*See C4* 64. (New) An isolated protein comprising a polypeptide having an amino acid sequence at least 90% or more identical to an amino acid sequence selected from the group consisting of:

- (a) amino acids 1 to 207 of SEQ ID NO:2;
- (b) amino acids 7 to 207 of SEQ ID NO:2;
- (c) amino acids 2 to 207 of SEQ ID NO:2; and
- (d) amino acids 28 to 207 of SEQ ID NO:2.

24 ~~65~~. (New) The isolated protein of claim ~~64~~<sup>23</sup>, which comprises a polypeptide having an amino acid sequence at least 90% or more identical to amino acid sequence (a).

*Q1* 25 ~~66~~. (New) The isolated protein of ~~64~~<sup>23</sup>, which comprises a polypeptide having an amino acid sequence at least 95% or more identical to amino acid sequence (a).

26 ~~67~~. (New) The isolated protein of claim ~~64~~<sup>23</sup>, which comprises a polypeptide having an amino acid sequence at least 90% or more identical to amino acid sequence (b).

27 ~~68~~. (New) The isolated protein of ~~64~~<sup>23</sup>, which comprises a polypeptide having an amino acid sequence at least 95% or more identical to amino acid sequence (b).

28 ~~69~~. (New) The isolated protein of claim ~~64~~<sup>23</sup>, which comprises a polypeptide having an amino acid sequence at least 90% or more identical to amino acid sequence (c).

29 ~~70~~. (New) The isolated protein of ~~64~~<sup>23</sup>, which comprises a polypeptide having an amino acid sequence at least 95% or more identical to amino acid sequence (c).

30 ~~71~~. (New) The isolated protein of claim ~~64~~<sup>23</sup>, which comprises a polypeptide having an amino acid sequence at least 90% or more identical to amino acid sequence (d).

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31 ~~72~~. (New) The isolated protein of ~~64~~, which comprises a polypeptide having an amino acid sequence at least 95% or more identical to amino acid sequence (d).

23

32 ~~73~~. (New) The isolated protein of claim ~~64~~, wherein the polypeptide further comprises a heterologous polypeptide sequence.

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33 ~~74~~. (New) The isolated protein of claim ~~73~~, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

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34 ~~75~~. (New) The protein of claim ~~64~~, wherein said protein is glycosylated.

23

35 ~~76~~. (New) The protein of claim ~~64~~, wherein said protein is pegylated.

*Sub C5*  
36 ~~77~~. (New) A composition comprising the protein of claim 64 and a pharmaceutically acceptable carrier.

37 ~~78~~. (New) The composition of claim ~~77~~, wherein the composition further comprises a liposome. 36

38 ~~79~~. (New) A protein produced by a method comprising:  
(a) expressing the protein of claim ~~64~~ by a cell; and  
(b) recovering the protein. 23

*Sub C6*  
39 ~~80~~. (New) An isolated protein comprising a polypeptide having an amino acid sequence at least 90% or more identical to an amino acid sequence selected from the group consisting of:

- (a) the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500;
- (b) the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500 excluding the N-terminal methionine residue; and

(c) the amino acid sequence of the mature polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500.

40 81. (New) The isolated protein of claim <sup>39</sup>80, which comprises a polypeptide having an amino acid sequence at least 90% or more identical to the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500.

41 82. (New) The isolated protein of claim <sup>39</sup>80, which comprises a polypeptide having an amino acid sequence at least 95% or more identical to the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500.

a' 42 83. (New) The isolated protein of claim <sup>39</sup>80, which comprises a polypeptide having an amino acid sequence at least 90% or more identical to the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500 excluding the N-terminal methionine residue.

43 84. (New) The isolated protein of claim <sup>39</sup>80, which comprises a polypeptide having an amino acid sequence at least 95% or more identical to the amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500 excluding the N-terminal methionine residue.

85. (New) The isolated protein of claim <sup>39</sup>80, which comprises a polypeptide having an amino acid sequence at least 90% or more identical to the amino acid sequence of the mature polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500.

86. (New) The isolated protein of claim <sup>39</sup>80, which comprises a polypeptide having an amino acid sequence at least 95% or more identical to the amino acid sequence of the mature polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500.

44 87. (New) The isolated protein of claim <sup>39</sup>80, wherein the polypeptide further comprises a heterologous polypeptide sequence.

<sup>44</sup>  
45 ~~88~~. (New) The isolated protein of claim ~~87~~, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

<sup>39</sup>  
46 ~~89~~. (New) The protein of claim ~~80~~, wherein said protein is glycosylated.

<sup>39</sup>  
47 ~~90~~. (New) The protein of claim ~~80~~, wherein said protein is pegylated.

*Sub C7*  
91. (New) A composition comprising the protein of claim 80 and a pharmaceutically acceptable carrier.

49 ~~92~~. (New) The composition of claim ~~91~~, wherein the composition further comprises a liposome.  
<sup>48</sup>

*a*  
<sup>50</sup> ~~93~~. (New) A protein produced by a method comprising:  
(a) expressing the protein of claim ~~80~~ by a cell; and  
(b) recovering the protein.  
<sup>39</sup>

94. (New) An isolated protein comprising a polypeptide having an amino acid sequence selected from the group consisting of:

(a) amino acid residues n to 207 of SEQ ID NO:2, where n is an integer from 1 to 58;

(b) amino acid residues 1 to m of SEQ ID NO:2, where m is an integer from 182 to 207; and

(c) amino acid residues n to m of SEQ ID NO:2, where n is an integer from 1 to 58 and m is an integer in the range of 182 to 207.

95. (New) The isolated protein of claim 94, wherein said amino acid sequence is (a).

96. (New) The isolated protein of claim 94, wherein said amino acid sequence is (b).

97. (New) The isolated protein of claim 94, wherein said amino acid sequence is (c).

*280*

*a*

98. (New) The isolated protein of claim 97, which comprises amino acid residues 30 to 192 of SEQ ID NO:2.

99. (New) The isolated protein of claim 94, wherein the polypeptide further comprises a heterologous polypeptide sequence.

100. (New) The isolated protein of claim 99, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

101. (New) The protein of claim 94, wherein said protein is glycosylated.

102. (New) The protein of claim 94, wherein said protein is pegylated.

a' 103. (New) A composition comprising the protein of claim 94 and a pharmaceutically acceptable carrier.

104. (New) The composition of claim 103, wherein the composition further comprises a liposome.

105. (New) A protein produced by a method comprising:

- (a) expressing the protein of claim 94 by a cell; and
- (b) recovering the protein.

106. (New) An isolated protein comprising a polypeptide having an amino acid sequence selected from the group consisting of:

- (a) the amino acid sequence of a fragment of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500, wherein said fragment excludes from 1 to 58 amino acid residues from the N-terminus of said full-length polypeptide;
- (b) the amino acid sequence of a fragment of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500, wherein said

fragment excludes from 1 to 24 amino acid residues from the C-terminus of said full-length polypeptide; and

(c) the amino acid sequence of a fragment of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500, wherein said fragment excludes from 1 to 58 amino acid residues from the N-terminus and from 1 to 24 amino acids from the C-terminus of said full-length polypeptide.

107. (New) The isolated protein of claim 106, wherein said amino acid sequence is (a).

108. (New) The isolated protein of claim 106, wherein said amino acid sequence is (b).

109. (New) The isolated protein of claim 106, wherein said amino acid sequence is (c).

110. (New) The isolated protein of claim 106, wherein the polypeptide further comprises a heterologous polypeptide sequence.

111. (New) The isolated protein of claim 110, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

112. (New) The protein of claim 106, wherein said protein is glycosylated.

113. (New) The protein of claim 106, wherein said protein is pegylated.

114. (New) A composition comprising the protein of claim 106 and a pharmaceutically acceptable carrier.

115. (New) The composition of claim 114, wherein the composition further comprises a liposome.



116. (New) A protein produced by a method comprising:

- (a) expressing the protein of claim 106 by a cell; and
- (b) recovering the protein.

117. (New) An isolated protein comprising a polypeptide having an amino acid sequence selected from the group consisting of:

- (a) amino acid residues 49 to 54 of SEQ ID NO:2;
- (b) amino acid residues 59 to 65 of SEQ ID NO:2;
- (c) amino acid residues 78 to 88 of SEQ ID NO:2;
- (d) amino acid residues 101 to 113 of SEQ ID NO:2;
- (e) amino acid residues 120 to 123 of SEQ ID NO:2;
- (f) amino acid residues 128 to 155 of SEQ ID NO:2;
- (g) amino acid residues 160 to 168 of SEQ ID NO:2;
- (h) amino acid residues 171 to 180 of SEQ ID NO:2;
- (i) amino acid residues 186 to 193 of SEQ ID NO:2; and
- (j) amino acid residues 204 to 207 of SEQ ID NO:2.

a' 118. (New) The isolated protein of claim 117, wherein said amino acid sequence is (a).

119. (New) The isolated protein of claim 117, wherein said amino acid sequence is (b).

120. (New) The isolated protein of claim 117, wherein said amino acid sequence is (c).

121. (New) The isolated protein of claim 117, wherein said amino acid sequence is (d).

122. (New) The isolated protein of claim 117, wherein said amino acid sequence is (e).

123. (New) The isolated protein of claim 117, wherein said amino acid sequence is (f).
124. (New) The isolated protein of claim 117, wherein said amino acid sequence is (g).
125. (New) The isolated protein of claim 117, wherein said amino acid sequence is (h).
126. (New) The isolated protein of claim 117, wherein said amino acid sequence is (i).
127. (New) The isolated protein of claim 117, wherein said amino acid sequence is (j).
128. (New) The isolated protein of claim 117 which comprises a polypeptide having amino acid sequence (a) and (b).
129. (New) The isolated protein of claim 117, wherein the polypeptide further comprises a heterologous polypeptide sequence.
130. (New) The isolated protein of claim 129, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.
131. (New) The protein of claim 117, wherein said protein is glycosylated.
132. (New) The protein of claim 117, wherein said protein is pegylated.
133. (New) A composition comprising the protein of claim 117 and a pharmaceutically acceptable carrier.
134. (New) The composition of claim 133, wherein the composition further comprises a liposome.

135. (New) A protein produced by a method comprising:

- (a) expressing the protein of claim 117 by a cell; and
- (b) recovering the protein.

51 136. (New) An isolated protein comprising a polypeptide having an amino acid sequence selected from the group consisting of:

- (a) the amino acid sequence of a fragment of amino acid residues 1 to 207 of SEQ ID NO:2, wherein the fragment has anti-viral activity;
- (b) the amino acid sequence of a fragment of amino acid residues 1 to 207 of SEQ ID NO:2, wherein the fragment inhibits bone marrow proliferation;
- (c) the amino acid sequence of a fragment of amino acid residues 1 to 207 of SEQ ID NO:2, wherein the fragment activates the Jak/Stat pathway; and
- (d) the amino acid sequence of a fragment of amino acid residues 1 to 207 of SEQ ID NO:2, wherein the fragment binds an antibody that specifically binds a protein having the amino acid sequence of SEQ ID NO:2.

52 137. (New) The isolated protein of claim 51 136, wherein said amino acid sequence is (a).

53 138. (New) The isolated protein of claim 51 136, wherein said amino acid sequence is (b).

54 139. (New) The isolated protein of claim 51 136, wherein said amino acid sequence is (c).

55 140. (New) The isolated protein of claim 51 136, wherein said amino acid sequence is (d).

56 141. (New) The isolated protein of claim 51 136, wherein the polypeptide further comprises a heterologous polypeptide sequence.

56  
57 142. (New) The isolated protein of claim 141, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

51  
58 143. (New) The protein of claim 136, wherein said protein is glycosylated.

51  
59 144. (New) The protein of claim 136, wherein said protein is pegylated.

61 C8  
145. (New) A composition comprising the protein of claim 136 and a pharmaceutically acceptable carrier.

60  
61 146. (New) The composition of claim 145, wherein the composition further comprises a liposome.

Q1  
62 147. (New) A protein produced by a method comprising:  
(a) expressing the protein of claim 136 by a cell; and  
(b) recovering the protein.

63  
148. (New) An isolated protein comprising a polypeptide having an amino acid sequence selected from the group consisting of:

(a) the amino acid sequence of a fragment of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500, wherein the fragment has anti-viral activity;

(b) the amino acid sequence of a fragment of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500, wherein the fragment inhibits bone marrow proliferation;

(c) the amino acid sequence of a fragment of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500, wherein the fragment activates the Jak/Stat pathway; and

(d) the amino acid sequence of a fragment of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500, wherein the fragment binds an antibody that specifically binds a protein having the amino acid sequence of SEQ ID NO:2.

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<sup>64</sup> 149. (New) The isolated protein of claim <sup>63</sup> 148, wherein said amino acid sequence is (a).

<sup>65</sup> 150. (New) The isolated protein of claim <sup>63</sup> 148, wherein said amino acid sequence is (b).

<sup>66</sup> 151. (New) The isolated protein of claim <sup>63</sup> 148, wherein said amino acid sequence is (c).

<sup>67</sup> 152. (New) The isolated protein of claim <sup>63</sup> 148, wherein said amino acid sequence is (d).

<sup>68</sup> 153. (New) The isolated protein of claim <sup>63</sup> 148, wherein the protein further comprises a heterologous polypeptide sequence.

<sup>69</sup> 154. (New) The isolated protein of claim <sup>68</sup> 153, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

<sup>70</sup> 155. (New) The protein of claim <sup>63</sup> 148, wherein said protein is glycosylated.

<sup>71</sup> 156. (New) The protein of claim <sup>63</sup> 148, wherein said protein is pegylated.

<sup>72</sup> 157. (New) A composition comprising the protein of claim 148 and a pharmaceutically acceptable carrier.

<sup>73</sup> 158. (New) The composition of claim 157, wherein the composition further comprises a liposome.

<sup>74</sup> 159. (New) A protein produced by a method comprising:  
(a) expressing the protein of claim <sup>63</sup> 148 by a cell; and  
(b) recovering the protein.

*Sub C10* 160. (New) An isolated protein comprising at least 30 contiguous amino acid residues of SEQ ID NO:2.

161. (New) The isolated protein of claim 160, wherein the isolated protein comprises at least 50 contiguous amino acid residues of SEQ ID NO:2.

*77* 162. (New) The isolated protein of claim <sup>75</sup>160, wherein the polypeptide further comprises a heterologous polypeptide sequence.

*78* 163. (New) The isolated protein of claim <sup>77</sup>162, wherein the heterologous polypeptide sequence is the Fc domain of an immunoglobulin.

*A1* *79* 164. (New) The protein of claim <sup>75</sup>160, wherein said protein is glycosylated.

*80* 165. (New) The protein of claim <sup>75</sup>160, wherein said protein is pegylated.

*Sub C11* 166. (New) A composition comprising the protein of claim 160 and a pharmaceutically acceptable carrier.

*82* 167. (New) The composition of claim <sup>81</sup>166, wherein the composition further comprises a liposome.

*83* 168. (New) A protein produced by a method comprising:

- (a) expressing the protein of claim <sup>75</sup>160 by a cell; and
- (b) recovering the protein.

*Sub C12* 169. (New) An isolated protein comprising at least 30 contiguous amino acid residues of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 203500.